Political Connections and Insider Trading

Thomas Bourveau, Renaud Coulomb, Marc Sangnier

amse
école d'économie d'aix-marseille
aix-marseille school of economics

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Thomas Bourveau
Renaud Coulomb
Marc Sangnier

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Thomas Bourveau[a] Renaud Coulomb[b] Marc Sangnier[c]

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Abstract

This paper investigates whether political connections affect individuals' propensity to engage in illegal activities in financial markets. We use the 2007 French presidential election as marker of change in the value of political connections, in a difference-in-differences research design. We examine the behavior of directors of publicly listed companies who are connected to the future president through campaign donations or direct friendships, relative to that of other non-connected directors, before and after the election. We uncover indirect evidence that connected directors do more illegal insider trading after the election. More precisely, we find that purchases by connected directors trigger larger abnormal returns, and that connected directors are more likely not to comply with trading disclosure requirements and to trade closer to major corporate events.

KEYWORDS: Political Connections, White-Collar Crime, Insider Trading.

JEL CODES: D72, G14, G18, G38, K22, K42

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[a]Hong Kong University of Science and Technology. Mail: actb@ust.hk

[b]University of Melbourne. Mail: renaud.coulomb@unimelb.edu.au

[c]Aix-Marseille Univ. (Aix-Marseille School of Economics), CNRS & EHESS. Mail: marc.sangnier@univ-amu.fr

1 Introduction

The economic literature has uncovered a variety of factors that can lead individuals to rationally commit crimes. A major consideration is the expected cost of being caught and punished. This cost depends both on the performance of judicial authorities and on the individual's own assets—such as his social network—that can be used to reduce his exposure to prosecution. In this paper, we investigate whether political connections affect an individual's propensity to engage in illegal insider trading on financial markets.

Insider trading based on private information is recognized as a crime and regulated in most countries. Its regulation is generally driven by the expected costs to society of such practices. Illegal insider trading can have a detrimental effect, reducing the public's trust of the stock market, discouraging outsiders from investing investments and also creating situations of conflict of interests for board members.[1]

Detailed and comprehensive information on trades by directors of French listed companies around the time of the 2007 French presidential election allow us to use a difference-in-differences setting to investigate whether directors connected to Nicolas Sarkozy—the winning candidate—modified their behavior on financial markets in response to his new powers. We define affiliates of Nicolas Sarkozy from his known friendships with businessmen and from the leaked list of major individual contributors to his political campaign. We uncover indirect evidence that connected directors do more illegal insider trading after the election. More precisely, our results suggest that directors connected to Nicolas Sarkozy tended to trade more on private information about their company's stocks after Sarkozy's victory relative to different control groups of non-connected directors. They were also more likely not to comply with legal trade reporting requirements, and appear to have traded closer to their firm's announcements of results. To the best of our knowledge, this paper is

[1]While the debate on the costs and benefits of insider trading, and thus on the need for regulation, remains open in the academic literature, Bhattacharya and Daouk (2002) show that the prosecution of illegal insider trading can reduce the cost of equity, leading to global economic benefits. For contributions to this debate, see Manne (1966), Manove (1989), Ausubel (1990), Leland (1992), Fernandes and Ferreira (2009), and Brochet (2014) among others.

the first to provide evidence that political connections favor white-collar crime on financial markets.

Our findings are fully consistent with Becker (1968)'s classical model of criminality as rational behavior. This approach considers crime as a rational activity whose expected costs depend on the probability of being caught and the severity of the punishment if convicted. This line of reasoning suggests that directors may be more likely to engage in fraudulent behavior if they believe that their connections provide them with some protection against prosecution. Such protection can pertain at different non-mutually exclusive levels: their financial activities may be monitored less by financial regulatory authorities; they may run a lower risk of prosecution; or they may face smaller penalties if prosecuted.[2]

France in 2007 provides a particularly appropriate context to address our research question, for at least four reasons. First, both the regulatory framework and *de facto* prosecution of insider trading were stable around the 2007 French presidential election. This is best illustrated by the stability of the prosecutorial activity in insider trading cases examined by the "*Autorité des Marchés Financiers*" (AMF)—the national agency which oversees French financial markets—over the period 2006–2008. In addition, a European directive applied in 2006 made it compulsory for all board members of publicly listed French firms to report their trades of their company's shares to the AMF. This means we have access to detailed trade-level and presumably comprehensive data. Second, the victory of Nicolas Sarkozy in the 2007 French presidential election represents a large and positive exogenous shock to the

[2]This latter hypothesis is consistent with empirical evidence provided by Correia (2014), who shows that US firms' political contributions reduce penalties prescribed by the Securities and Exchange Commission for both firms and their executives in cases of prosecution for fraudulent accounting practices. Note that directors could also believe that political connections place them under stronger scrutiny due, for instance, to greater media attention, making them less inclined to act illegally. While we are not able to directly test for the existence of this alternative mechanism, our empirical results at least suggest that it is not the dominant one.

value of pre-election connections to him.[3,4] Third, France is particularly well-suited to an examination of directors' social ties, because the country's elites are highly concentrated and politically connected, as documented by Kramarz and Thesmar (2013). Finally, a key feature of the French setting is that companies are not allowed to directly contribute to the financing of political campaigns. Hence, unlike other settings, we are able to observe the effects that arise from individual rather than firm-level connections.

We use the 2007 French presidential election in a difference-in-differences framework and measure the extent to which directors connected to Nicolas Sarkozy modified their trading behavior from the pre- to the post-election period, relative to non-connected directors. We define political connections to Nicolas Sarkozy via two channels. Our first source is the group of major individual contributors to Nicolas Sarkozy's presidential campaign, which we obtained from a French news website—Mediapart.fr—that leaked the list in 2012. The second is the list of businessmen known to be Sarkozy's friends constructed by Coulomb and Sangnier (2014). The patterns in personal background leading to befriending a top-level politician are obviously not random. The same applies to individuals' decisions to donate money to a campaign. To address this issue, we use three different control groups of non-connected directors. The first group consists of the entire universe of French listed company directors not connected to Nicolas Sarkozy. The second is restricted to non-connected directors of firms that have at least one of Sarkozy's affiliates on their board. The third group contains directors selected using a matching approach from all non-connected directors on boards where there are no Sarkozy's affiliates.

The detailed data on trades by French directors allow us to construct three dependent

[3]The literature uses different proxies for changes in the value of political connections. Elections are used by Ferguson and Voth (2008), Goldman et al. (2009), Cooper et al. (2010), Imai and Shelton (2011), Coulomb and Sangnier (2014) and Akey (2015). Other events are also considered, such as non-electoral power shifts (Fisman 2001, Jayachandran 2006 and Acemoglu et al. 2015), appointments of politically connected directors (Faccio 2006 and Fan et al. 2007) and appointments in local government of former employees (Cingano and Pinotti 2013).

[4]Sarkozy's election ensured a sizeable increase in his power: the French president enjoys wide-ranging political powers. While the government determines the national agenda and designs laws to be approved by the French National Assembly, the president can dissolve the latter or dismiss ministers at any time. The French president also influences insider trading prosecution, as he directly appoints the head of the AMF.

variables to capture different dimensions of their trading behavior. We first focus on market abnormal returns around the public disclosure of insider purchases, to determine whether connected directors' trades contained more private information after their candidate won the election.[5] Our baseline estimations provide us with a difference-in-differences estimate that ranges between 0.5% and 1.5% around the purchase disclosure date, an economically significant effect. This finding on stock returns may simply reflect the fact that politically connected directors have better information about the government's future decisions, thus hold more privileged information after the election. To disentangle this confounding interpretation from the possibility that directors are breaking the law through expected impunity, we examine changes in trade reporting behavior as well as in the timing of directors' trades relative to corporate results announcements.[6]

Executives and board members of French publicly listed companies are required to disclose to the AMF within five business days their transactions on stocks of firms in which they hold a managerial position or a directorship. Our difference-in-differences estimates suggest that the probability of connected directors not respecting the reporting time limit increased by about 20% following the election of Nicolas Sarkozy. Similarly, we provide evidence that connected directors tended to trade around 1–2 months closer to firms' announcements of results after Sarkozy's election. This latter result confirms that connected directors traded more on private information after the election, as more and more privileged information is available inside companies the closer results announcement are. These findings support our preferred interpretation that the sense of impunity due to political connections leads directors to engage in fraudulent behavior on financial markets. We cannot, however, rule out the possibility that connected directors also had better access to non-public information

[5]This approach follows previous theoretical and empirical contributions by Rozeff and Zaman (1988), Lakonishok and Lee (2001) and Jeng et al. (2003), who advocate using stock returns at disclosure times to proxy for the information content of purchases. The literature further argues that purchases made by directors contain on average more private information that open market sales, as the latter are mostly driven by portfolio-diversification motives. This makes illegal insider trading more likely to be embedded in open market insider purchases than in sales.

[6]The literature offers evidence that insiders possess and use information about forthcoming accounting disclosures in their trading activity (see Ke et al. 2003 among others).

about future laws or policies after the election of Nicolas Sarkozy.

All in all, we find evidence that politically connected directors were more likely to engage in fraudulent behavior after the election of Nicolas Sarkozy.[7] This behavior appears profitable: we estimate from a back-of-the-envelope calculation that Sarkozy affiliates' latent gains increased by roughly 30 million euro following the 2007 presidential election.

This paper contributes to two distinct strands of the literature. Firstly, we contribute to the literature on the determinants of an individual's decision to engage in illegal activities. Adding to the exploration of the sources of crime, whose social cost is estimated to be high (see Anderson 1999 among others), we provide evidence that political connections seem to favor white-collar crime. We thus add political connections to the growing list of determinants of illegal activity already documented by scholars.[8] Our findings stress the importance of social ties in criminal activities and somehow echo contributions by Patacchini and Zenou (2008), Bayer et al. (2009), and Mastrobuoni (2015).[9] We differ from these papers as we study the impact of connections to politicians—not criminals—on the likelihood to commit crime. Our study of French insider trading also allows us to depart from most of the literature on crime, which uses crime detected by police or judicial authorities as a measure of criminal activity. In contrast to most other crimes, which are less easily observable, illegal insider trading gives us the opportunity to offer multiple indirect evidence by personally observing the insiders' trading behavior and the market reaction to insiders' trades.[10] Not

[7]Two characteristics of the French context make our results plausibly generalizable to other developed countries. First, French regulation of insider trading has much in common with that of other developed countries. Second, French media closely scrutinized the ramifications of Sarkozy's social network inside the business community. It is therefore likely that the effect of political connections on insider trading could be even larger in contexts with less visibility.

[8]The non-exhaustive list of documented crime determinants includes: income, employment and socio-economic disparities (Gould et al. 2002 and Miguel 2005), education (Lochner and Moretti 2004 and Deming 2011), social interactions (Glaeser et al. 1996), punishment (Myers 1983 and Cornwell and Trumbull 1994, prior incarceration (Aizer and Doyle 2015), police activity (Levitt 1997 and DiTella and Schargrodsky 2004), and immigration enforcement (Pinotti 2015).

[9]Patacchini and Zenou (2008) show that even weak ties to criminals increase the probability to start committing crimes. Bayer et al. (2009) study how social ties amongst offenders built during shared juvenile detention in the US impact future criminal behaviour. Mastrobuoni (2015) shows that the economic status of Italian Mafia members increases with their centrality in the criminal social network.

[10]The AMF does not disclose the identity of all individuals convicted of illegal insider trading surrounding the 2007 election. Our study of the criminal behavior of individuals, rather than the activity of judicial

relying on cases detected by judicial authorities is a great advantage, as these authorities can modulate their monitoring and prosecution depending on the identity of the criminals. Another strength of our paper is that our sample is composed of executives and directors of French listed companies, who form a relatively homogeneous group in terms of employment, salary, education and social background—factors known to affect the propensity to commit crimes.

Our second contribution is to the growing literature on the value of political connections. This literature essentially focuses on firms and supports the idea that political connections lead to favorable treatment by politicians in power. Following seminal work by Fisman (2001), several papers show that the equity value of politically-connected firms changes with political events (see Jayachandran 2006, Knight 2007, Claessens et al. 2008, Ferguson and Voth 2008, Cooper et al. 2010, Dube et al. 2011, and Coulomb and Sangnier 2014 among others).[11] We depart from this literature by looking at the impact of political connections on individuals' behavior and by uncovering the private value of personal connections to a politician. We share this special feature with a small number of recent contributions such as Cruz et al. (2015) and Fafchamps et al. (2016), who use data from the Philippines and provide evidence that politicians' relatives obtain better jobs and benefit from clientelism.[12]

The remainder of the paper is organized as follows. Section 2 describes the institutional and political context. Section 3 lays out the data and our estimation strategy. Empirical results are presented and challenged in Section 4. Section 5 contains concluding remarks.

authorities, also contrasts with Correia (2014).

[11]The literature has cast some light on the channels through which these connections affect firms' value. For instance, politically-connected firms can receive preferential treatment from public institutions (Gordon and Hafer 2005, Tahoun and Van Lent 2013 and Correia 2014), obtain more government contracts (Goldman et al. 2013, Boas et al. 2014), more private contracts (Akey 2015) and can have preferential access to finance and bank loans (Khwaja and Mian 2005). Fisman and Yongxiang (2015) present further empirical evidence that political connections help to side-step—potentially costly—risk-avoidance measures for workers in Chinese firms. Two other recent studies by Tahoun (2014) and Eggers and Hainmueller (2014) document that politicians strategically invest in stock of firms with whom they have political relationships.

[12]Hwang and Kim (2009), Lalanne and Seabright (2011), and Khanna et al. (2015) emphasize the role of social ties amongst directors in shaping their decisions but do not consider political connections.

2 Institutional context

This section presents the French regulatory setup on insider trading and describes the context of the 2007 presidential election.

2.1 Insider trading regulation

The "*Autorité des Marchés Financiers*" (AMF, hereafter) ensures the protection of savings and investors' information, and the proper functioning of financial markets. Its court—the enforcement committee—rules on penalties.[13] Our use of the French setting relies on three regulatory features regarding insider trading: restrictions on trading when aware of material and non-public information, trade reporting requirements and recommendations to avoid trading close to major corporate events.

Like most developed countries, France has laws that restrict trading on private information. The first law was passed in 1970 and the French Monetary and Financial Code prohibits insiders from carrying out or facilitating transactions before the public has knowledge of the privileged piece of information (Article L465-1). The 2005 version of the code lists a maximum penalty of two years imprisonment and a fine of 1.5 million euro, which can be increased to up to ten times the amount of the alleged illegal profit. Importantly, the code's provisions on insider trading remained unchanged throughout our sample period. The 2010 Banking and Financial Regulation Act then increased the maximum penalty to 100 million euro and twenty years imprisonment.[14]

Insider trade reporting requirements under French law are derived from the 2003 Euro-

[13]The AMF Board has 16 members who are either representatives of different public institutions or professionals. Board members serve a five-year term of office, renewable once. The AMF chairman also chairs the board of the agency and has a casting vote in the event that board votes are tied. He is appointed by a presidential decree for a non-renewable irrevocable five-year term. The enforcement committee is independent from the board and is formed of 12 members, none of whom sit on the board. It includes judges and professionals.

[14]Recently, the court of the AMF pursued a case and ruled on a 14 million euro fine against two businessmen for illegal insider trading during the 2008 takeover bid by the SNCF on Geodis (See http://www.ft.com/content/2922de50-3cb9-11e3-86ef-00144feab7de).

pean Market Abuse Directive ($2003/6/EC$).[15] This directive aims to harmonize disclosure requirements within the European Union by mandating the public disclosure of insiders' transactions within five business days. In France, executives and other directors have disclosed their trades directly to the AMF since April 2006. The information is then posted on the AMF's website. Before this date, trades were not systematically disclosed and thus not immediately observed by market participants. Directors failing to disclose their transactions within the time limit incur financial penalties.[16]

French listed companies usually prohibit transactions by directors for fixed periods before major corporate events such as earnings releases, to avoid raising suspicion of insider trading. Over the years before 2010, these periods, for the 120 largest French listed firms, were on average 26, 25, and 16 days before the release of annual, half-year and quarterly results, respectively.[17]

Market monitoring is operated by the AMF Market Surveillance Department for all financial instruments traded on the French stock exchange. It relies on different automated tests to identify "atypical movements in trading volumes, intermediaries' market shares, prices and other situations"; as highlighted in the AMF 2009 annual report. These alerts cover all sorts of anomalies, not only those related to potential illegal insider trading. Alerts launched by the AMF internal monitoring system are complemented by other sources such as suspicious-transaction reports from intermediaries. If fraud suspicion does not vanish after the first check by AMF analysts, the AMF will start an investigation that will lead to a report. Then, the AMF enforcement committee can decide either to dismiss the case, or to impose sanctions, or/and to refer the case to the judicial authorities—usually a public prosecutor. Table A1, presented in the Online Appendix, summarizes all publicly available information about AMF monitoring activity and the number of reported sanctions related to

[15] Article L621-18-2 of the Monetary and Financial Code and Article 223-22 of the AMF General Regulations.

[16] For instance, the AMF imposed a $30,000$ euro fine on September 18^{th} 2009 on an executive who did not disclose the sale of $87,141$ shares of his company within the time limit.

[17] This information was obtained from the 2010 *Guide relatif à la prévention des manquements d'initiés imputables aux dirigeants des sociétés cotées (DOC*-2010-07*)*.

insider trading over the period 2005–2009. These figures suggest that there was no change in the AMF's overall enforcement of detection and prosecution of insider trading cases around the 2007 French presidential election.

2.2 Political context

French citizens elect their president for a five-year term by direct universal suffrage. In the 2007 election, Nicolas Sarkozy was chosen as the official candidate of the largest right-wing party—the "*Union pour un Mouvement Populaire*" (UMP). His main competitor was Ségolène Royal, the official candidate of the largest left-wing party—the "*Parti Socialiste*". The 2007 French presidential election was held on April 22$^{\text{nd}}$. As no candidate received a majority of votes, a run-off between the two candidates was held on May 6$^{\text{th}}$. Nicolas Sarkozy won this second run-off with 53.06% of the votes.

Nicolas Sarkozy had been a member of the successive governments during the previous presidency (2002–2007).[18] However, his election as President had a significant impact on his power and consequently increased the value of being connected to him, for at least two reasons. First, France is a semi-presidential republic where the president has extensive power. For example, the prime minister is chosen by the president and appoints the government, whose composition must be validated by the president. The Parliament votes laws that are *de facto* fostered by the president. Indeed, for the past two terms, presidential elections have immediately preceded parliamentary elections, with the party of the elected president systematically obtaining the parliamentary majority. The French National Assembly can be dissolved by the president at any time. Furthermore, the president also appoints the director of the AMF for a five-year term. In addition, the president can have an indirect influence

[18]During President Jacques Chirac's second term, Nicolas Sarkozy served as Minister of the Interior in Jean-Pierre Raffarin's first government from May 2002 to March 2004. He was appointed Minister of Finance in Raffarin's second government from March 2004 to May 2005. He was then appointed Minister of the Interior in Dominique de Villepin's government from June 2005 to March 2007. Nicolas Sarkozy left this position to run for the 2007 presidential election. He had also been the leader of the UMP party since November 2004.

on any public prosecutors prosecuting insider trading cases.[19] Finally, Nicolas Sarkozy was known to have a strong vision of the presidential role, as argued by Jan (2011).

Second, there was a well-documented animosity between Nicolas Sarkozy and both the former President, Jacques Chirac, and the Prime Minister, Dominique de Villepin.[20,21] This animosity seriously limited Nicolas Sarkozy's influence before his election as president. As a consequence, his 2007 victory was accompanied by a real increase in power.

3 Data and estimation strategy

This section first describes the data used in this paper. We then present the different dependent variables we use to uncover evidence of insider trading, and detail the estimation strategy.

3.1 Defining political connections

We consider two types of pre-election personal connections between Nicolas Sarkozy and directors of French listed firms: major individual campaign contributions and friendship

[19]Prior research has established that career incentives lead prosecutors to modify the timing of their prosecutions in corruption cases to file cases faster against opposition partisans (Nyhan and Rehavi, 2016).

[20]The animosity between Sarkozy and Chirac was rooted in Sarkozy's support for Chirac's rival Edouard Balladur to be their party's candidate in the 1995 presidential election. In his TV-broadcast speech celebrating Bastille Day on July 14th 2004—the most important presidential speech of the year—, former President Jacques Chirac said of Nicolas Sarkozy "I decide, he must comply"; it was a period when Nicolas Sarkozy was challenging Jacques Chirac's authority. During his speech, former President Jacques Chirac also established a rule preventing Nicolas Sarkozy, then Minister of Finance, from concurrently holding his position within the government and the UMP party leadership he was running for. As a result, Nicolas Sarkozy abandoned his position as Minister of Finance. However, a year later, a more-than-ever popular Nicolas Sarkozy was appointed Minister of the Interior, after the government had resigned in the wake of an ideological defeat in a nation-wide referendum.

[21]In his essay, *De l'esprit de cour* published in 2010, Dominique de Villepin cannot find words harsh enough to condemn Sarkozy. In an interview broadcast on Europe 1 in 2010, he declared: "Sarkozy is one of the problems of France, and amongst the major ones we must address". Their relationship is summarized by the title of an article published in *L'Express* in 2011: "Sarkozy-Villepin, 15 years of hate". This article particularly examined the manipulation of the legal system in the Clearstream scandal that occurred during the 2007 presidential campaign. Sarkozy's name appeared in a list of French individuals that, supposedly, held illegal accounts at Clearstream Bank in Luxembourg. This list was anonymously sent to the legal authorities, and turned out to be a forgery. De Villepin was indicted on charges of complicity in false denunciation in 2008, as he had been aware of this list since 2004, and it was suspected that he also knew that the list was a fake; he was acquitted in 2010.

bonds.[22,23]

On September 2012, the French news website Mediapart.fr published a column in which journalists leaked the list of "major contributors" ("*grands donateurs*") to Sarkozy's 2007 presidential campaign. This list was produced by the party's administration and contains first and last names of 567 distinct individuals that contributed to the then UMP party and one of its related micro-parties.[24] The existence of the list has never been contested nor denied by anybody, and its accuracy has been publicly confirmed by some of the individuals on it. As highlighted by Arfi et al. (2012), numerous individuals working in finance were in this group of major contributors, which was actually a club whose members gathered at meetings and dinners organized for that purpose. This strongly suggests that the composition of the group was common knowledge among its members and that the identity of the UMP's major individual contributors was known by stock market participants around the 2007 French presidential election.[25] A key feature of the French setting is that companies are not allowed to directly contribute to the financing of political campaigns. Hence, unlike other settings, we are able to distinguish the effects that arise from individual rather than firm-level connections.

During the 2007 electoral campaign, French media reported a number of friendship con-

[22]No such connections are known for Ségolène Royal—the main left-wing candidate in the 2007 French presidential election. No sign has ever emerged of any structured group of contributors to her campaign. Nor did the media ever report friendship connections between her and businessmen, the only exception being her friendship with Pierre Bergé, a millionaire businessman who was a public supporter of the "*Parti Socialiste*".

[23]Directors' campaign contributions are used by Ferguson and Voth (2008) to identify politically connected firms. Similarly, friendships between politicians and directors or shareholders are used by Johnson and Mitton (2003) and Coulomb and Sangnier (2014) to link firms to politicians.

[24]French law prevents firms from contributing to political campaigns. This contrasts with the United States, where firms are allowed to contribute to political campaigns and where some of them donate to different candidates in the same election. In France, private contributions are not publicly disclosed and the maximum donation an individual can make to a political party was $7,500$ euro in 2007. Rumor has it that individuals who appear on the list of major contributors gave at least $3,000$ euro to the party during the 2007 campaign. Note that it is likely that these individuals contributed to Sarkozy's campaign alone as they presumably shared the party's ideas when joining the group.

[25]Arfi et al. (2012) reveal suspicions of complaisance concerning tax fraud by campaign contributors. However, some members of this list have had the judicial authorities' attention drawn to their activities. For instance, a member of this group who works as a bank CEO recently gained private benefits from complex offshore loopholes according to Livolsi and Israel (2014). His financial activities have been investigated by the financial department of the French public prosecutor's office for money laundering of tax fraud proceeds.

nections between Nicolas Sarkozy and prominent businessmen. We thus selected the 27 businessmen identified as friends of Nicolas Sarkozy by Coulomb and Sangnier (2014) using information from books written by journalists and political pundits (Chemin and Perrignon 2007 and Dély and Hassoux 2008).[26]

3.2 Data on insiders' transactions

Since the 2006 application of a European directive, all board members of French listed firms must report their trades of their company's shares to the AMF. Accordingly, data on insiders' trades contain all trades by board members of French listed companies since April 2006.[27] Each trade is uniquely identified by the name of the trader, the name of the company whose stocks are traded and the transaction date. The dataset also contains the position of the board member (e.g., executive or non-executive director), the transaction type (i.e., sale or purchase), the number of shares traded, and the total value of the trade, as well as the announcement date, i.e. the date when the trade is disclosed to the AMF and thus made public. The dataset is presumably comprehensive and contains $7,385$ trades from mid-2006 to mid-2008—the time-window that will be used in the empirical analysis. These trades were operated by $1,643$ distinct individuals.

3.3 Measuring illegal insider trading

We use three dependent variables to capture different dimensions of directors' behavior and to uncover evidence of illegal insider trading. First, we focus on abnormal stock returns at the announcement date of insider trades to determine whether these trades contain more private information after the election of Nicolas Sarkozy. We then examine whether connected directors are more likely not to comply with the AMF insider trading reporting regulations.

[26] See Coulomb and Sangnier (2014) for more details about the construction of this group.

[27] We obtain this database from Directors Deals, a data vendor that compiled data from the AMF website. Other recent studies focusing on non-US insider transactions, such as Fidrmuc et al. (2013) and Brochet (2014), use Directors Deals as a primary source of information.

Finally, we determine whether they tend to trade closer to corporate results announcements, thereby going against the internal policies firms institute to avoid insider trading. While the first variable represents the *market perception* of illegal insider trading, the two other variables provide evidence about the *observed* financial activity of directors. More precisely, they capture how likely directors are not to comply with AMF regulations and firms' soft law.

i) Two-day compound abnormal return on purchases at announcement date

Beaver (1968) and Rozeff and Zaman (1988) emphasize the role of stock returns in measuring the information content of a public announcement. The intuition is that if market participants believe that insider trades are based on the use of privileged information about a firm's future cash-flows, outsiders will buy shares in the firm, leading to abnormal positive returns after insiders' purchases are made public. We thus study firms' market returns around the reporting of insider purchases to determine whether the purchases of connected directors contain more information after the election of Nicolas Sarkozy. In our main analysis of abnormal returns, we focus exclusively on purchases by insiders, as the literature makes an important distinction between the informativeness of sales and purchases with regard to illegal trading. Lakonishok and Lee (2001) and Jeng et al. (2003) argue that open market sales by directors are driven by diversification motives, while illegal insider trading is mostly embedded in open market insider purchases.

We follow MacKinlay (1997) in constructing firms' abnormal returns on purchases at announcement date. For each purchase, we first estimate the relationship between a firm's return and that of the market over a period of 30 days before the announcement date. We then predict the firm's returns from those observed on the announcement day and on the next two days using the estimated market model.[28] A similar approach is used by various

[28]Specifically, we run the following regression for each stock i for which a purchase is announced on day t:

$$\mathbb{R}_{i\tau} = \alpha_{it} + \beta_{it} \times \bar{\mathbb{R}}_{\tau} + \varepsilon_{i\tau}, \text{ for } \tau \in [t-30, t-1]\,,$$

where $\mathbb{R}_{i\tau}$ is firm i's stock return on day τ, $\bar{\mathbb{R}}_{\tau}$ is the market return on day τ, and $\varepsilon_{i\tau}$ is the error term. We obtain daily stock and market returns from Datastream. We use the SBF 120 return as market return. The

papers in the literature, including for instance Fisman (2001), Jayachandran (2006), Knight (2007), and Coulomb and Sangnier (2014).

ii) Non-compliance with legal time limit for trade reporting

As discussed in Section 2, directors must disclose their trades on their company's stocks directly to the AMF within 5 business days. Directors failing to disclose their transactions within this time limit incur financial penalties. We thus construct the *non-compliance with legal time limit* variable as a dummy variable equal to 1 if the trade announcement delay is strictly larger than 5 business days.

iii) Time to firm's next results announcement

Most French listed companies discourage directors' transactions close to the firm's results announcements, as privileged information is likely to be held by insiders before results releases. We scrapped from *TradingSat.com*—an information website about French financial markets—the dates of public announcements by French listed firms and computed for each trade the *time to firm's next results announcement* as the time (in days) between an insider transaction date and the next public announcement of results by the firm. We verified that the relationship between this variable and abnormal returns on insider purchases is negative and statistically significant in our sample of trades. This confirms that privileged information is held by insiders before results announcements, and that they use this information

SBF 120 is a reference index composed of the 120 most actively traded stocks on the Paris Stock Exchange. We estimate the above expression separately for each firm and each announcement date, which yields trade-level estimated parameters $\hat{\alpha}_{it}$ and $\hat{\beta}_{it}$. These are used to compute the abnormal returns of each purchase over the two following business days using the following formula:

$$\tilde{\mathbb{R}}_{i\tau} = \mathbb{R}_{i\tau} - \left\{\hat{\alpha}_{it} + \hat{\beta}_{it} \times \bar{\mathbb{R}}_{\tau}\right\}, \text{ for } \tau \in [t, t+1, t+2],$$

where $\tilde{\mathbb{R}}_{i\tau}$ is the abnormal return of stock i on day τ. As highlighted by Jayachandran (2006), the use of abnormal returns rather than standard market returns addresses the concern that shares prices of some firms might covary. If covariance pertains due to covariance between these firms and the market, firms will have the same estimated beta, and abnormal returns will be independent. We finally compute the two-day compound abnormal return on purchases as:

$$\tilde{\mathbb{R}}_{it}^{\text{com}} = \left(1 + \tilde{\mathbb{R}}_{i,t}\right) \times \left(1 + \tilde{\mathbb{R}}_{i,t+1}\right) \times \left(1 + \tilde{\mathbb{R}}_{i,t+2}\right) - 1.$$

when they buy their company stocks close to the firm's results releases.[29]

3.4 Estimation strategy

Given that the outcome of the 2007 French presidential election was anticipated in the weeks that preceded the vote itself (Coulomb and Sangnier 2014) and that directors do not trade their companies' shares every day, sharp discontinuity-style analysis is not possible here. We therefore use a 2-year time-window around the 2007 French presidential election to capture changes in directors' behavior linked to the victory of Nicolas Sarkozy.

We match data on insiders' trades with the list of connected businessmen to identify individuals that appear in both datasets. Of the 584 individuals that appear on the list of campaign contributors, 28 also appear as directors trading stocks. So do 17 out of the 27 businessmen considered to be friends of Nicolas Sarkozy. Only 2 traders are both friends of Nicolas Sarkozy and contributors to his campaign. We consider all these 43 individuals as *Sarkozy affiliates*. Although this group represents only 2.6% of the traders operating during our time-window, Sarkozy affiliates traded on average 15 times over these two years, against 4 times on average for all other board members. As a consequence, 8.8% of trades were by Sarkozy affiliates. Sarkozy affiliates also appear to be board members of larger firms and to be more likely than the average director to hold executive positions.

We consequently use three different samples in our empirical analysis to circumvent, as far as possible, the problem of the observable differences between Sarkozy affiliates and other traders. The *full sample* is composed of all available observations. The *affiliates' firms sample* includes trades made both by connected traders and by non-connected traders who sit on a board with at least one connected director. Finally, our *matched board members sample* includes trades both by connected traders and by non-connected directors selected from boards without any connected directors via propensity score matching, based on the following observables: firm's market capitalization and industry, insider's position within the

[29] As expected, we do not find a robust relationship between abnormal returns triggered by sales and the time to firm's next results announcement variable, since insiders' sales contain little private information.

board and value of individual's average trade over the observation period. Table 1 briefly summarizes the main differences between groups and displays average values of dependent variables. It also shows that neither the groups' volumes of trade nor the values of their trades evolved differently across time.

Based on the three different samples, we estimate the change in behavior of politically-connected directors compared to non-connected directors before and after Nicolas Sarkozy's election, using a difference-in-differences approach. We implement this design by estimating the following expression:

$$\begin{aligned} y_{it} &= \beta \text{Sarkozy affiliate}_i \times \text{Post-election}_t \\ &+ \gamma \text{Sarkozy affiliate}_i + \delta \text{Post-election}_t \\ &+ \alpha + \varepsilon_{it}, \end{aligned} \tag{1}$$

where y_{it} is one of the above three dependent variables for a trade operated by individual i on day t, *Sarkozy affiliate*$_i$ is a dummy variable equal to one for Sarkozy affiliates, *Post-election*$_t$ is a dummy variable equal to one from May 6$^{\text{th}}$ 2007 on, ε_{it} is the error term, and α is a constant. Our coefficient of interest, the difference-in-differences estimate β, captures change in behavior of Sarkozy affiliates relative to non-connected directors after the presidential election. Coefficient γ captures possible differences between the behavior of Sarkozy affiliates and other directors over the whole period, while coefficient δ captures common change in behavior of all directors after the election relative to before the election.

4 Results

In this section, we first present empirical evidence that Sarkozy affiliates modified their behavior in financial markets after the 2007 French presidential election. We then discuss various factors that may hamper identification and interpretation and show that these findings are robust to a battery of tests.

4.1 Main results

We start our analysis by estimating expression (1) with abnormal returns on purchases as a dependent variable. Estimated coefficients are reported in the top panel of Table 2. Odd-numbered columns present coefficients obtained using the three different samples. The coefficient on *Sarkozy affiliate* × *Post Election* is systematically positive and statistically significant at conventional levels. This indicates that after the election more private information is embedded in Sarkozy affiliates' purchases than in other directors' trades. The effect is economically significant as well. Our difference-in-differences estimates range from 70 to 150 basis points across specifications. The size of this change is comparable to estimates reported by Brochet (2010), who examines the change in insider trades' information content following the adoption of the 2002 Sarbanes-Oxley Act, which imposed more timely disclosure by US listed firms' insider traders.

As already mentioned, firms with Sarkozy affiliates on their board, as well as Sarkozy affiliates themselves, are likely to share characteristics that might be correlated with financial markets' response to insider trades. While this concern is partly addressed by the portfolio of samples we use, we further introduce firm fixed effects and trade- and trader-level covariates in the model. The latter category includes a dummy equal to one for individuals who hold executive positions, the trade's value in current euro and interaction terms between these two variables and the post-election variable.[30] Estimated coefficients of the modified model are reported in even-numbered columns in the top panel of Table 2.[31] Difference-in-differences estimates are hardly affected by these changes.[32]

Estimates displayed in the top panel of Table 2 suggest that trades by Sarkozy affiliates contain more private information after than before the presidential election, relative to non-

[30]Seyhun (1986) shows that insider trade informativeness varies with insiders' position within the firm. Similarly, trades' informativeness may vary with size of trade (see Seyhun 1986 and Lin and Howe 1990 among others).

[31]When the sample is that of matched board members, firms' size and return on assets (as well as the interaction terms between these variables and the post-election dummy) are used instead of firm fixed effects.

[32]Unreported covariates yield estimates of expected sign. For instance, larger trades or trades operated by executives tend to generate higher abnormal returns.

connected board members. This relative increase in the informativeness of Sarkozy affiliates trades could be driven by privileged access to information about future government decisions that could impact their firms. Such privileged access may not be restricted to directors connected to the future President who may feel protected due to their political connections. If privileged information extracted from the government is related to lobbying, it is plausible that non-connected directors sitting on the same board as a connected director have also gained access to such information. However, any possibility that this is primarily driving our results is quickly ruled out: our estimate of interest remains unchanged when the affiliates' firms sample is used. This argues against the idea that connected directors engage in fraudulent behavior solely because they receive more privileged information. Finally, while we cannot fully disentangle all the different mechanisms at play, the two other dependent variables will help us to provide evidence that connected directors do have a feeling of impunity that could be the main driver of their illegal insider trading.

The middle panel of Table 2 presents difference-in-differences estimates using traders' non-compliance with AMF legal disclosure requirements as dependent variable. We replicate the previous empirical analysis and report estimates obtained using the three different samples and the two sets of covariates. Difference-in-differences estimates are positive and statistically different from zero. This indicates that Sarkozy affiliates became more likely to break the law after than before the victory of Nicolas Sarkozy, relative to other directors. The impact of political connections on trade reporting behavior is quite stable: the probability of Sarkozy affiliates breaking the reporting requirements increases by about 15 to 25% depending on specifications.

In the bottom panel of Table 2, we use the time to firm's next results announcement as dependent variable. The coefficient on *Sarkozy affiliate* $\times$ *Post Election* is negative and statistically significant in all specifications. Sarkozy affiliates tend to trade about 1 or 2 months closer to firm results announcements. These estimates provide evidence that connected directors trade closer to sensitive periods. The underlying reason for banning insider trading

before results release is that insiders could hold private information during this period. From Section 3, we know that abnormal returns at announcement date are higher when insider trades occur closer to forthcoming firm results announcements. Thus, estimates about the timing of trades by connected directors are coherent with our previous results showing that connected directors' trades contain more private information after the election of Nicolas Sarkozy.

Overall, the estimates presented in Table 2 suggest that after the election, Sarkozy affiliates tended to use private information more when trading, were less likely to comply with AMF trade reporting requirements and traded closer to firm results announcements. This greater likelihood of Sarkozy affiliates engaging in fraudulent behavior on financial markets naturally raises the question of the profits they made. We are unable to observe the complete evolution of directors' portfolios and their realized gains, as board members of French listed firms have only been required to report their trades since mid-2006. We thus focus on latent benefits by replicating the previous estimations, using as dependent variable the difference between a stock's evolution and the market index over the 30-day period that follows a purchase. This provides us with six statistically significant difference-in-differences estimates ranging from 0.005 to 0.075 whose median and mean are equal to 0.032 and 0.039, respectively. By multiplying these figures by the total value of stock purchases by Sarkozy affiliates during the year following the election, we obtain 28.8 and 35.1 million euro, respectively. This suggests that Sarkozy affiliates' latent gains increased by roughly 30 million euro.

4.2 Robustness checks

We start by changing the way we construct stocks' abnormal returns. We first exclude days with any insider transaction from the market model we use to calculate abnormal returns. We then change the length of the calibration period to 7, 120, and 200 rather than 30 days. We also extend from 2 to 3 and 16 business days the period over which we compute

compound abnormal returns. As shown by rows 1–6 of Table 3, these modifications do not substantially affect either the magnitude or the statistical significance of difference-in-differences estimates. This confirms that previous estimates of interest are not sensitive to the arbitrary methodological choices we made.

We then replicate our main estimation in situations in which we should theoretically not uncover any significant effect. For instance, Lakonishok and Lee (2001) and Jeng et al. (2003) argue that insiders' sales contain little information, since such transactions are generally made for diversification purposes. There is accordingly no reason to find a difference-in-differences estimate different from zero when looking at abnormal returns at insiders' sales announcement date. This is confirmed by non-statistically significant estimates presented in row 7 of Table 3. Similarly, it is theoretically impossible for equity traders to react to a trade at the time of transaction, as they are not aware of it yet. Coefficients presented in row 8 show that difference-in-differences estimates cannot be considered as different from zero when using abnormal returns at insiders' purchase transaction dates (instead of announcement dates) as dependent variable.

Estimates displayed in the middle panel of Table 3 illustrate the robustness of findings obtained from looking at non-compliance with the AMF trade reporting requirement. To achieve this, we first use a probit model to re-estimate expression (1). We then return to ordinary least squares and swap the original independent dummy variable first for the absolute number of days and then for the log of the disclosure delay. All difference-in-differences estimates that we obtain with these specifications are consistent with previous ones.

We next test the robustness of findings using the time from director's trade to firm's next results announcement. We first swap the dependent variable for its logarithm or for a dummy variable that is equal to one if the time is shorter than one month. We then add the constraint that the time must be calculated from a yearly results announcement, i.e. we discard intermediate results announcements. Findings are qualitatively unaffected

by these changes, as shown by difference-in-differences estimates presented in the top three rows of the bottom panel of Table 3. We finally perform two placebo tests by computing the time from each trade to the firm's next public event—not including the announcement of results and presumably not generating privileged information—or the time between the firm's last results announcement and the transaction date. Reassuringly, using these two variables as left-hand variables does not produce statistically significant estimates, as shown by coefficients presented in the two bottom rows of Table 3.

As additional explicit placebo tests, we replicate the data construction and re-estimate expression (1) replacing May 6$^{\text{th}}$ 2007 by the dates of four French elections that took place between 2008 and 2011. These events are not expected to affect the benefits directors might derive from their political connections in such a way as to lead to changes in their behavior on financial markets. These tests help us to disentangle between any potential effect of the election itself from the effect of a perceived change in law enforcement probability for Sarkozy affiliates. We also repeat this exercise using four randomly selected dates.[33] Difference-in-differences coefficients estimated around these alternative dates are reported in Table A2 in Online Appendix. In contrast to May 6$^{\text{th}}$ 2007, none of these eight dates actually produces estimates that are consistent across samples and dependent variables.

We finally test the sensitivity of estimates to the way standard errors are calculated and to the exclusion of influential observations. Table A3 in Online Appendix presents difference-in-differences estimates obtained when standard errors are clustered at the firm and at the trader level. This helps to address the concern that the length of time between a trade and the next corporate event, delays in trade reporting or even market reaction to an insider purchase can be correlated at director or firm levels. The statistical significance of these estimates is remarkably similar to the baseline estimates. Online Appendix Table A4 displays difference-in-differences coefficients estimated over samples that exclude influential

[33]Each fictitious election date was randomly drawn from the interval March 22$^{\text{nd}}$ 2007–June 28$^{\text{th}}$ 2012. The lower bound of this interval corresponds to the earliest date at which we observe a trade plus one year. The upper bound corresponds to the latest date at which we observe a trade minus one year.

observations. More precisely, for each of the regressions presented in Table 2, we exclude any observation j such that $|\text{DFBETA}_j| < 2/\sqrt{N}$, where N is the number of observations used in the original sample and DFBETA_j is the difference in the coefficient of the interaction term if observation j is excluded from the sample. Estimates of interest turn out to be robust to such restrictions.

5 Conclusion

In this paper, we investigate whether political connections impact an individual's propensity to engage in illegal activities on financial markets. Using the 2007 French presidential election in a difference-in-differences research design, we find robust evidence that directors connected to the future President modified their behavior on financial markets after the election. Specifically, we find that after the election connected directors tended to use private information more in trading, relative to various control groups of non-connected directors. Our analyses also reveal that they were less likely to comply with legal trade reporting requirements and tended to trade closer to their firms' results announcements. Overall, our findings suggest that political connections may promote white-collar crime on financial markets.

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Table 1: Descriptive statistics

	Sarkozy affiliates			Non-connected directors in ... Full sample		
# of individuals	43			1600		
Executive position	0.42			0.28		
Firm market capitalization (in billion euro)	12.3			3.6		
	Election ± 1 year	Pre-election	Post-election	Election ± 1 year	Pre-election	Post-election
# of trades	665	342	323	6,720	3,489	3,231
Trade value (in million euro)	4.7	5.7	3.6	2.2	3.4	1.1
Abnormal return	-0.002	-0.004	0.000	0.002	0.004	0.001
Non-compliance with legal time limit	0.77	0.75	0.79	0.73	0.79	0.66
Time to firm's next results announcement	167	188	143	170	164	175

	Non-connected directors in ... Affiliates' firms			Non-connected directors in ... Matched board members		
# of individuals	351			63		
Executive position	0.18			0.38		
Firm market capitalization (in billion euro)	12.3			9.8		
	Election ± 1 year	Pre-election	Post-election	Election ± 1 year	Pre-election	Post-election
# of trades	1,659	861	798	322	156	166
Trade value	5.1	7.7	2.8	1.6	1.7	1.6
Abnormal return	0.001	0.001	-0.000	-0.003	-0.002	-0.009
Non-compliance with legal time limit	0.72	0.80	0.63	0.77	0.83	0.72
Time to firm's next results announcement	176	172	180	182	171	192

Table's cells report average values constructed at individual or trade level. The 2007 French presidential election took place on May 6th 2007. *Sarkozy affiliates* are directors or French listed firms who are connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director. *Abnormal return* stands for "2-day compound abnormal return on purchases at announcement date" and is the compound abnormal return (computed using a firm-specific 30-day market model) of the traded stock over the two days following the announcement of a purchase. *Non-compliance with legal time limit* is a dummy variable equal to 1 if the transaction disclosure is made strictly more than 5 business days later. *Time to firm's next results announcement* is the time (in days) between a trade's date and the next public announcement of results by the firm.

Table 2: Difference-in-differences estimation of change in behavior of Sarkozy affiliates around Sarkozy's election

Dependent variable: 2-day compound abnormal return on purchases at announcement date

	(1)	(2)	(3)	(4)	(5)	(6)
Sample	Full		Affiliates' firms		Matched board members	
(# of observations)	(N=2,581)		(N=888)		(N=488)	
Post-election	-0.003**	-0.001	-0.002	-0.002	-0.011***	-0.073**
	(0.001)	(0.002)	(0.002)	(0.002)	(0.004)	(0.031)
Sarkozy affiliate	-0.008***	-0.003	-0.006***	-0.002	-0.006**	-0.007**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Sarkozy affiliate × Post-election	0.007***	0.007***	0.006**	0.005*	0.015***	0.015***
	(0.002)	(0.003)	(0.003)	(0.003)	(0.004)	(0.004)
Trade/trader covariates		Yes		Yes		Yes
Firm fixed effects or covariates		Yes		Yes		Yes

Dependent variable: Non-compliance with legal time limit

	(7)	(8)	(9)	(10)	(11)	(12)
Sample	Full		Affiliates' firms		Matched board members	
(# of observations)	(N=7,385)		(N=2,324)		(N=987)	
Post-election	-0.133***	-0.119***	-0.167***	-0.143***	-0.104**	-0.679*
	(0.011)	(0.015)	(0.022)	(0.026)	(0.046)	(0.351)
Sarkozy affiliate	-0.049**	-0.164***	-0.050*	-0.192***	-0.081**	-0.066*
	(0.025)	(0.034)	(0.027)	(0.035)	(0.038)	(0.040)
Sarkozy affiliate × Post-election	0.174***	0.204***	0.207***	0.251***	0.145**	0.143**
	(0.035)	(0.033)	(0.039)	(0.039)	(0.057)	(0.058)
Trade/trader covariates		Yes		Yes		Yes
Firm fixed effects or covariates		Yes		Yes		Yes

Dependent variable: Time to firm's next results announcement

	(13)	(14)	(15)	(16)	(17)	(18)
Sample	Full		Affiliates' firms		Matched board members	
(# of observations)	(N=6,390)		(N=2,181)		(N=884)	
Post-election	11.588***	28.676***	7.909	22.125***	20.477*	92.411
	(2.691)	(3.851)	(5.217)	(6.080)	(12.343)	(82.335)
Sarkozy affiliate	24.188***	21.156**	16.280**	8.004	16.989	14.413
	(6.071)	(9.122)	(6.775)	(9.515)	(11.208)	(12.302)
Sarkozy affiliate × Post-election	-56.436***	-54.398***	-52.758***	-30.440***	-65.325***	-64.777***
	(8.955)	(9.453)	(10.013)	(10.636)	(15.020)	(15.680)
Trade/trader covariates		Yes		Yes		Yes
Firm fixed effects or covariates		Yes		Yes		Yes

*** p<0.01, ** p<0.05, * p<0.1. White heteroskedastic standard errors in parentheses. OLS regressions. Each column presents estimates from a separate regression. All regressions include a constant term. Observations are trades by board members of French listed firms that took place within 365 days from the French presidential election of May 6th 2007. *Post-election* is a dummy variable equal to 1 for all trades that occurred after the election. *Sarkozy affiliate* is a dummy variable equal to 1 if the trader is connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director. *Trade/trader covariates* include a dummy equal to 1 for individuals that are members of the management board of the firm at the date of the trade, the trade's value in current euro, and interaction terms between these two variables and the post-election dummy. For the matched board members sample, firms' size and return on assets (as well as the interaction terms between these variables and the post-election dummy) are used instead of firm fixed effects. *2-day compound abnormal return on purchases at announcement date* is the compound abnormal return (computed using a firm-specific 30-day market model) of the traded stock over the two days following the announcement of a purchase. *Non-compliance with legal time limit* is a dummy variable equal to 1 if the transaction disclosure is made strictly more than 5 business days later. *Time to firm's next results announcement* is the time (in days) between a trade's date and the next public announcement of results by the firm.

Table 3: Difference-in-differences estimation of change in behavior of Sarkozy affiliates around Sarkozy's election: Robustness checks and placebo tests

Abnormal returns			
	Full sample	Affiliates' firms	Matched board members
Excluding days with an insider's transaction	0.008***	0.005*	0.014***
	(0.003)	(0.003)	(0.004)
7-day market model	0.010***	0.010***	0.012**
	(0.003)	(0.003)	(0.005)
120-day market model	0.006**	0.004	0.014***
	(0.003)	(0.003)	(0.004)
200-day market model	0.006**	0.004	0.014***
	(0.003)	(0.003)	(0.004)
3-day compound abnormal return	0.007**	0.005	0.018**
	(0.003)	(0.003)	(0.007)
16-day compound abnormal return	0.038***	0.015*	0.073***
	(0.008)	(0.008)	(0.017)
Abnormal return on sales	0.001	-0.003	-0.001
	(0.003)	(0.003)	(0.006)
Abnormal return at transaction date	0.002	-0.005	0.005
	(0.004)	(0.004)	(0.007)
Compliance with legal time limit			
	Full sample	Affiliates' firms	Matched board members
Probit model	0.209***	0.239***	0.136***
	(0.022)	(0.026)	(0.052)
Absolute number of days	5.213***	4.122***	4.448***
	(0.559)	(0.630)	(1.159)
Log of number of days	0.302***	0.350***	0.309***
	(0.041)	(0.049)	(0.083)
Time to firm's next results announcement			
	Full sample	Affiliates' firms	Matched board members
Log of time	-0.410***	-0.214**	-0.596***
	(0.089)	(0.102)	(0.150)
Less than one month from event	0.068***	0.030	0.146***
	(0.026)	(0.030)	(0.044)
Yearly results announcement only	-47.976***	-27.347***	-51.306***
	(9.416)	(10.585)	(15.716)
Time to next event of other type	-2.017	-4.736	6.250
	(2.710)	(3.104)	(4.654)
Time since firm's last announcement	-15.759	-14.417	8.891
	(10.092)	(10.968)	(16.146)

*** p<0.01, ** p<0.05, * p<0.1. White heteroskedastic standard errors in parentheses. OLS regressions, except if otherwise specified. Each cell presents an estimate from a separate regression. The reported estimate is for *Sarkozy affiliate* × *Post-election*. All regressions include a constant term, *post-election*, *Sarkozy affiliate*, *trade/trader covariates*, and firm fixed effects or covariates as defined in Table 2. Observations are trades by board members of French listed firms that took place within 365 days from the French presidential election of May 6th 2007. *Post-election* is a dummy variable equal to 1 for all trades that occurred after the election. *Sarkozy affiliate* is a dummy variable equal to 1 if the trader is connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director. See the text for restrictions or modifications that apply to each regression with respect to specifications presented in even-numbered columns of Table 2.

Online Appendix

Table A1: AMF surveillance activity from 2005 to 2009

	2005	2006	2007	2008	2009
Opened investigations	88	84	92	97	76
Incl. insider dealing or actions impairing orderly markets	35	36	40	34	28
Concluded investigations	91	105	96	95	80
Incl. concluded investigations leading to sanction proceedings	28	27	26	22	20
Incl. investigation reports referred to public prosecutor	25	23	25	20	17
Opened procedures	34	35	29	36	29
Concluded procedures	32	30	33	40	33
Incl. concluded procedures leading to sanctions	27	25	28	34	26
Incl. sanctions for insider trading	2	4	5	10	9*

Source: AMF annual reports. *In 2009, only the number of sanctioned traders is available.

Table A2: Difference-in-differences estimation of change in behavior of Sarkozy affiliates around non-presidential elections and fictitious election dates

Dependent variables in columns heading

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	2-day compound abnormal return on purchases at announcement date			Non-compliance with legal time limit			Time to firm's next results announcement		
	Full sample	Affiliates' firms	Matched board members	Full sample	Affiliates' firms	Matched board members	Full sample	Affiliates' firms	Matched board members
March 16, 2008	-0.006*	-0.005	-0.011*	-0.027	-0.121***	0.062	20.622**	24.675**	32.112**
(municipal election)	(0.003)	(0.004)	(0.006)	(0.035)	(0.042)	(0.062)	(9.486)	(10.715)	(14.029)
June 7, 2009	-0.005	-0.005	0.005	0.133**	0.103	-0.133*	-15.591	-17.101	-11.936
(European election)	(0.007)	(0.007)	(0.009)	(0.058)	(0.063)	(0.079)	(12.733)	(13.218)	(16.489)
March 21, 2010	-0.001	-0.002	-0.015**	0.062	0.057	0.075	-14.655	-14.651	50.446***
(regional election)	(0.009)	(0.009)	(0.007)	(0.061)	(0.063)	(0.092)	(15.911)	(16.269)	(19.427)
September 25, 2011	0.011**	0.011**	0.004	-0.120	-0.181**	-0.131	30.154*	30.458*	3.147
(gubernatorial election)	(0.005)	(0.005)	(0.007)	(0.074)	(0.077)	(0.089)	(16.531)	(17.478)	(22.038)
November 3, 2008	0.002	0.005	0.008	0.052	0.006	0.087	5.645	5.046	-5.089
(fictitious election)	(0.004)	(0.005)	(0.007)	(0.040)	(0.046)	(0.067)	(10.377)	(11.239)	(15.729)
December 10, 2010	0.004	0.003	0.009	0.034	0.015	0.174**	30.327	9.986	4.997
(fictitious election)	(0.006)	(0.007)	(0.007)	(0.072)	(0.075)	(0.085)	(18.464)	(18.948)	(19.973)
June 23, 2011	0.011**	0.010**	0.002	-0.092	-0.149**	-0.029	63.071***	70.446***	-8.314
(fictitious election)	(0.004)	(0.004)	(0.006)	(0.070)	(0.072)	(0.087)	(18.029)	(18.428)	(21.030)
July 12, 2012	-0.031***	-0.030**	-0.010	-0.034	-0.022	-0.103	-22.325	-23.246	-41.601**
(fictitious election)	(0.012)	(0.012)	(0.009)	(0.081)	(0.086)	(0.113)	(16.324)	(17.324)	(20.327)

*** p<0.01, ** p<0.05, * p<0.1. White heteroskedastic standard errors in parentheses. OLS regressions. Each cell presents an estimate from a separate regression. The reported estimate is for *Sarkozy affiliate* × *Post-election*. All regressions include a constant term, *post-election*, *Sarkozy affiliate*, *trade/trader covariates*, and firm fixed effects or covariates as defined in Table 2. Observations are trades by board members of French listed firms that took place within 365 days from the date specified in each row. *Post-election* is a dummy variable equal to 1 for all trades that occurred after the election. *Sarkozy affiliate* is a dummy variable equal to 1 if the trader is connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director.

Table A3: Difference-in-differences estimation of change in behavior of Sarkozy affiliates around Sarkozy's election: Clustered standard errors.

Dependent variable: 2-day compound abnormal return on purchases at announcement date			
	(1)	(2)	(3)
Sample	Full	Affiliates' firms	Matched board members
Sarkozy affiliate × Post-election	0.007	0.005	0.015
	(0.003)**	(0.002)**	(0.004)***
	[0.003]**	[0.002]**	[0.004]***
Dependent variable: Non-compliance with legal time limit			
	(4)	(5)	(6)
Sample	Full	Affiliates' firms	Matched board members
Sarkozy affiliate × Post-election	0.204	0.251	0.143
	(0.059)***	(0.068)***	(0.084)*
	[0.055]***	[0.063]***	[0.076]*
Dependent variable: Time to firm's next results announcement			
	(7)	(8)	(9)
Sample	Full	Affiliates' firms	Matched board members
Sarkozy affiliate × Post-election	-54.398	-30.440	-64.777
	(28.840)*	(26.372)	(37.520)*
	[26.359]**	[20.675]	[33.216]*

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses are clustered at firm level. Standard errors in brackets are clustered at trader level. OLS regressions. Each cell presents an estimate from a separate regression. All regressions include a constant term, *post-election*, *Sarkozy affiliate*, *trade/trader covariates*, and firm fixed effects or covariates as defined in Table 2. Observations are trades by board members of French listed firms that took place within 365 days from the French presidential election of May 6$^{\text{th}}$ 2007. *Post-election* is a dummy variable equal to 1 for all trades that occurred after the election. *Sarkozy affiliate* is a dummy variable equal to 1 if the trader is connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director. *2-day compound abnormal return on purchases at announcement date* is the compound abnormal return (computed using a firm-specific 30-day market model) of the traded stock over the two days following the announcement of a purchase. *Non-compliance with legal time limit* is a dummy variable equal to 1 if the transaction disclosure is made strictly more than 5 business days later. *Time to firm's next results announcement* is the time (in days) between a trade's date and the next public announcement of results by the firm.

Table A4: Difference-in-differences estimation of change in behavior of Sarkozy affiliates around Sarkozy's election: Robustness to the exclusion of influential observations

Dependent variable: 2-day compound abnormal return on purchases at announcement date			
	(1)	(2)	(3)
Sample	Full	Affiliates' firms	Matched board members
(# of observations)	(N=2,448)	(N=833)	(N=463)
Sarkozy affiliate × Post-election	0.007***	0.005**	0.016***
	(0.002)	(0.002)	(0.003)
Dependent variable: Non-compliance with legal time limit			
	(4)	(5)	(6)
Sample	Full	Affiliates' firms	Matched board members
(# of observations)	(N=7,051)	(N=2,196)	(N=912)
Sarkozy affiliate × Post-election	0.121***	0.308***	0.043
	(0.014)	(0.032)	(0.036)
Dependent variable: Time to firm's next results announcement			
	(7)	(8)	(9)
Sample	Full	Affiliates' firms	Matched board members
(# of observations)	(N=5,964)	(N=2,010)	(N=839)
Sarkozy affiliate × Post-election	-57.353***	-38.308***	-78.542***
	(8.184)	(9.439)	(14.580)

*** p<0.01, ** p<0.05, * p<0.1. White heteroskedastic standard errors in parentheses. OLS regressions. Each cell presents an estimate from a separate regression. All regressions include a constant term, *post-election*, *Sarkozy affiliate*, *trade/trader covariates*, and firm fixed effects or covariates as defined in Table 2. Observations are trades by board members of French listed firms that took place within 365 days from the French presidential election of May 6$^{\text{th}}$ 2007. *Post-election* is a dummy variable equal to 1 for all trades that occurred after the election. *Sarkozy affiliate* is a dummy variable equal to 1 if the trader is connected to Sarkozy. See the text for details about the construction of the group. The *full* sample contains all directors. The *affiliates' firms* sample includes connected insiders and non-connected ones on the same board as at least one connected director. The *matched board members* sample includes connected insiders and non-connected ones selected using a propensity score among members of boards with no connected director. *2-day compound abnormal return on purchases at announcement date* is the compound abnormal return (computed using a firm-specific 30-day market model) of the traded stock over the two days following the announcement of a purchase. *Non-compliance with legal time limit* is a dummy variable equal to 1 if the transaction disclosure is made strictly more than 5 business days later. *Time to firm's next results announcement* is the time (in days) between a trade's date and the next public announcement of results by the firm. Samples used in regressions are constructed by excluding from samples of Table 2 any observation j such that $|\text{DFBETA}_j| < 2/\sqrt{N}$, where N is the number of observations used in the original sample and DFBETA_j is the difference in the coefficient of the interaction term if observation j is excluded from the sample.